



ISSN 1000-2030  
 CN 32-1148/S  
 CODEN NNDXEI

# 南京农业大学学报

*JOURNAL OF NANJING AGRICULTURAL UNIVERSITY*

第 46 卷 第 2 期  
 Vol. 46 No. 2

2023 年 3 月  
 Mar. 2023

2

2023



全国中文核心期刊  
 CSCD 来源期刊  
 中国精品科技期刊  
 百种中国杰出学术期刊

目 次

• 植物科学 •

水稻柱头外露率主效 QTL *qTSE4* 的定位 ..... 何晓娟, 万华, 高俊文, 顾伟航, 谢振威, 赵志刚, 万建民 (217)

*GmDREB8* 在大豆干旱胁迫下的功能分析

..... 许建玉, 陆阳, 孙睿东, 王修帅, 丁文涛, 邓肃霜, 王鹏崑, 赵晋铭, 郭娜, 邢邯 (226)

香蕉果实酵母双杂交文库的构建及后熟转录因子 MaMADS2 互作蛋白筛选

..... 王川, 盛鸥, 窦同心, 李斌, 胡春华, 杨乔松, 邓贵明, 董涛, 李春雨, 易干军, 毕方铖 (237)

茉莉酸甲酯对荆芥抗氧化能力、腺毛密度及其分泌物的影响

..... 师建玲, 崔英静, 夏威, 刘水龙, 马召, 唐晓清, 王康才, 李宇峰, 顾斌杰 (247)

体外施用小分子 RNA 抑制稻瘟病菌分生孢子发育及致病性的作用效果

..... 喻晗晞, 丁绍晨, 陈盼, 圣聪, 李绚, 徐乐, 赵弘巍 (257)

• 生物与环境科学 •

复合性状转 *cry2A<sup>\*</sup>/bar* 基因水稻 T2A-1 与杂草稻 F<sub>1</sub>、F<sub>2</sub>、F<sub>3</sub> 的适合度

..... 李雷, 肖乐铨, 王园园, 强胜, 戴伟民, 宋小玲 (266)

富氢水对草莓生长发育及光合作用的影响 ..... 潘妮, 程雪, 沈文飏, 陆巍 (278)

香蕉长链非编码 RNA *Malnc2310* 启动子区域分析及上游调控因子筛选

..... 李文彬, 于晓玲, 闫羿辰, 孙建波 (287)

联合接种原生动物和木霉对黄瓜生长及土壤微生物区系的影响

..... 莫雅旒, 郭赛, 欧燕楠, 焦子轩, 黄若菱, 李荣, 沈宗专, Geisen Stefan, 沈其荣 (297)

• 动物医学与科学 •

奶牛乳房炎源肺炎克雷伯菌耐药特性分析 ..... 高兴, 赵柯杰, 于勇, 潘子豪, 马家乐, 姚火春 (306)

米非司酮的抗伪狂犬病毒作用及其与氢醌的协同效应 .....	李紫彤,赵晨遥,朱慧欣,蓝培如,王先炜(316)
丙二醛对豆粕蛋白质氧化的影响及茶多酚的缓解作用 .....	宋娟娟,谢婷,刘文涵,汪鹏,王岩,陈跃平,周岩民(324)
发酵豆粕对蛋雏鸡生长性能、养分表观代谢率、血液指标和盲肠微生物的影响 .....	陈添晔,许晨远,敖蕊,朱崇森,姚文,郑卫江(333)
日粮添加尿素对育肥湖羊空肠菌群结构及氨和尿素转运蛋白表达的影响 .....	孙美杰,郑文金,申军士,朱伟云(345)
基于猪体外仿生消化法研究单宁对高粱养分降解效率的影响 .....	李旺,顾晓明,安冬,李军,冯少轩,朱伟云,潘龙(354)
瘦素对牦牛乳腺上皮细胞中 SOCS3 和 STAT3 蛋白表达的影响及催乳素的作用 .....	董宝霞,杨玉莹,张勤文,魏青,荆海霞(360)
尿素中毒对山羊肾脏氧化应激及铁死亡指标的影响 .....	郝宁浩,张桦,王利,魏勇,向益,俄木曲者,孟元华,苗斌,陈勇(368)

• 食品与工程科学 •

扣囊复膜酵母 Y11 固态发酵对麦麸理化特性的影响 .....	杨克胜,王沛,董华,陆兆新,吕凤霞(377)
土壤宏基因组来源新型四环素破坏酶基因 <i>tet(64)</i> 的表达及功能鉴定 .....	荣宇凤,王绍琛,卫林,高月皎,吕云斌,冯治洋(387)
基于双目立体视觉的冻干草莓外部品质等级检测方法研究 .....	范安琪,左常洲,彭菁,孙柯,赵保民,朱太海,陈飞,屠康,潘磊庆(396)
温室风幕式施药装置设计与试验 .....	邱威,邬伊浩,周慧能,方杰,吕晓兰,余洪峰(405)
基于 HPO-SVM 的拖拉机柴油机故障诊断研究 .....	周俊博,肖茂华,朱焯均,宋宁,张婕(416)
《南京农业大学学报》稿约 .....	(428)
《南京农业大学学报》数据库收录和获奖情况 .....	(封二)
《南京农业大学学报》被 WJCI 收录 .....	(封三)

# JOURNAL OF NANJING AGRICULTURAL UNIVERSITY

Vol. 46 No. 2

Mar. 2023

## CONTENTS

### • Plant Science •

Mapping of QTL *qTSE4* for stigma exertion rate in rice

..... HE Xiaojuan, WAN Hua, GAO Junwen, GU Weihang, XIE Zhenwei, ZHAO Zhigang, WAN Jianmin (217)

Functional analysis of *GmDREB8* under drought stress in soybean

..... XU Jianyu, LU Yang, SUN Ruidong, WANG Xiushuai, DING Wentao, DENG Sushuang,  
WANG Pengwei, ZHAO Jinming, GUO Na, XING Han (226)

Construction of yeast two-hybrid library and screening of interacting proteins of ripening regulator MaMADS2 in banana fruit

..... WANG Chuan, SHENG Ou, DOU Tongxin, LI Bin, HU Chunhua, YANG Qiaosong,  
DENG Guiming, DONG Tao, LI Chunyu, YI Ganjun, BI Fangcheng (237)

Effects of MeJA on antioxidant capacity, glandular trichome density, volatile exudates of *Schizonepeta tenuifolia*

..... SHI Jianling, CUI Yingjing, XIA Wei, LIU Shuilong, MA Zhao, TANG Xiaoqing,  
WANG Kangcai, LI Yufeng, GU Binjie (247)

The effect of *in vitro* application of small RNA on inhibiting conidia development and pathogenicity of *Magnaporthe oryzae*

..... YU Hanxi, DING Shaochen, CHEN Pan, SHENG Cong, LI Xuan, XU Le, ZHAO Hongwei (257)

### • Biology and Environment Science •

Fitness of F<sub>1</sub>, F<sub>2</sub> and F<sub>3</sub> from T2A-1 transgenic rice stacked with *cry2A*<sup>\*</sup>/*bar* genes and weedy rice

..... LI Lei, XIAO Lequan, WANG Yuanyuan, QIANG Sheng, DAI Weimin, SONG Xiaoling (266)

Effects of hydrogen-rich water on growth and photosynthesis of strawberry

..... PAN Ni, CHENG Xue, SHEN Wenbiao, LU Wei (278)

Analysis of long noncoding RNA *Malnc2310* promoter from banana (*Musa* spp.) and identification of its regulators

..... LI Wenbin, YU Xiaoling, YAN Yichen, SUN Jianbo (287)

Effects of protists and *Trichoderma* co-inoculation on cucumber growth and soil microbial communities

..... MO Yani, GUO Sai, OU Yannan, JIAO Zixuan, HUANG Ruoling, LI Rong,  
SHEN Zongzhuan, Geisen Stefan, SHEN Qirong (297)

• Animal Medicine and Science •

- Antimicrobial resistance analysis of *Klebsiella pneumoniae* isolated from bovine mastitis  
..... GAO Xing,ZHAO Kejie,YU Yong,PAN Zihao,MA Jiale,YAO Huochun(306)
- Antiviral effect of mifepristone on *Pseudorabies virus* and its synergistic effect with hydroquinone  
..... LI Zitong,ZHAO Chenyao,ZHU Huixin,LAN Peiru,WANG Xianwei(316)
- Effects of malonaldehyde on protein oxidation of soybean meal and the mitigation effect of tea polyphenols  
..... SONG Juanjuan,XIE Ting,LIU Wenhan,WANG Peng,WANG Yan,CHEN Yueping,ZHOU Yanmin(324)
- Effects of fermented soybean meal on the growth performance,nutrient apparent metabolic rate,blood indicators and cecum  
microbiota of pullets ..... CHEN Tianye,XU Chenyuan,AO Rui,ZHU Chongmiao,YAO Wen,ZHENG Weijiang(333)
- Effects of urea supplementation on jejunal bacterial communities and the mRNA expression of ammonia and urea transporter  
proteins in fattening Hu lambs ..... SUN Meijie,ZHENG Wenjin,SHEN Junshi,ZHU Weiyun(345)
- Effect of tannin on the degradation efficiency of sorghum nutrients based on *in vitro* bionic digestion of pigs  
..... LI Wang,GU Xiaoming,AN Dong,LI Jun,FENG Shaoxuan,ZHU Weiyun,PAN Long(354)
- Effect of leptin on the expression of SOCS3 and STAT3 proteins in yak mammary epithelial cells and the role of prolactin  
..... DONG Baoxia,YANG Yuying,ZHANG Qinwen,WEI Qin,JING Haixia(360)
- Effects of urea poisoning on oxidative stress and ferroptosis indicators in goat kidney  
..... HAO Ninghao,ZHANG Hua,WANG Li,WEI Yong,XIANG Yi,  
EMU Quzhe,MENG Yuanhua,MIAO Bin,CHEN Yong(368)

• Food and Engineering Science •

- Effects of solid-state fermentation with *Saccharomycopsis fibuligera* Y11 on physicochemical properties of wheat bran  
..... YANG Kesheng,WANG Pei,DONG Hua,LU Zhaoxin,LÜ Fengxia(377)
- Expression and functional identification of a tetracycline destructase gene *tet(64)* from soil metagenome  
..... RONG Yufeng,WANG Shaochen,WEI Lin,GAO Yuejiao,LÜ Yunbin,FENG Zhiyang(387)
- Study on detecting method of external quality level of freeze-dried strawberry based on binocular stereo vision  
..... FAN Anqi,ZUO Changzhou,PENG Jing,SUN Ke,ZHAO Baomin,ZHU Taihai,CHEN Fei,TU Kang,PAN Leiqing(396)
- Design and test of greenhouse air curtain spraying device  
..... QIU Wei,WU Yihao,ZHOU Huineng,FANG Jie,LÜ Xiaolan,YU Hongfeng(405)
- Fault diagnosis of tractor diesel engine based on HPO-SVM  
..... ZHOU Junbo,XIAO Maohua,ZHU Yejun,SONG Ning,ZHANG Jie(416)